OIPE

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RAW SEQUENCE LISTING   DATE: 03/04/2002
PATENT APPLICATION: US/10/075,907   TIME: 14:51:05

Input Set : A:\7039sl.txt
Output Set: N:\CRF3\03042002\J075907.raw

```
  4 <110> APPLICANT: Genencor International, Inc.
  5        Davis, Benjamin G.
  6        Jones, Bryan J.
  7        Bott, Richard R.
  9 <120> TITLE OF INVENTION: CHEMICALLY MODIFIED ENZYMES WITH
 10        MULTIPLE CHARGED VARIANTS
 12 <130> FILE REFERENCE: 23623-7039
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C--> 14 <140> CURRENT APPLICATION NUMBER: US/10/075,907
C--> 15 <141> CURRENT FILING DATE: 2002-02-12
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 17 <150> PRIOR APPLICATION NUMBER: US 60/113,130
 18 <151> PRIOR FILING DATE: 1998-12-21
 20 <160> NUMBER OF SEQ ID NOS: 2
 22 <170> SOFTWARE: FastSEQ for Windows Version 4.0
 24 <210> SEQ ID NO: 1
 25 <211> LENGTH: 269
 26 <212> TYPE: PRT
 27 <213> ORGANISM: Bacillus lentus
 29 <220> FEATURE:
 30 <223> OTHER INFORMATION: Subtilisin SBL
 32 <400> SEQUENCE: 1
 33 Ala Gln Ser Val Pro Trp Gly Ile Ser Arg Val Gln Ala Pro Ala Ala
 34  1               5                   10                  15
 35 His Asn Arg Gly Leu Thr Gly Ser Gly Val Lys Val Ala Val Leu Asp
 36              20                  25                  30
 37 Thr Gly Ile Ser Thr His Pro Asp Leu Asn Ile Arg Gly Gly Ala Ser
 38              35                  40                  45
 39 Phe Val Pro Gly Glu Pro Ser Thr Gln Asp Gly Asn Gly His Gly Thr
 40      50                  55                  60
 41 His Val Ala Gly Thr Ile Ala Ala Leu Asn Asn Ser Ile Gly Val Leu
 42 65                  70                  75                  80
 43 Gly Val Ala Pro Ser Ala Glu Leu Tyr Ala Val Lys Val Leu Gly Ala
 44                  85                  90                  95
 45 Ser Gly Ser Gly Ser Val Ser Ser Ile Ala Gln Gly Leu Glu Trp Ala
 46                  100                 105                 110
 47 Gly Asn Asn Gly Met His Val Ala Asn Leu Ser Leu Gly Ser Pro Ser
 48              115                 120                 125
 49 Pro Ser Ala Thr Leu Glu Gln Ala Val Asn Ser Ala Thr Ser Arg Gly
 50      130                 135                 140
 51 Val Leu Val Val Ala Ala Ser Gly Asn Ser Gly Ala Gly Ser Ile Ser
 52 145                 150                 155                 160
 53 Tyr Pro Ala Arg Tyr Ala Asn Ala Met Ala Val Gly Ala Thr Asp Gln
 54                  165                 170                 175
 55 Asn Asn Asn Arg Ala Ser Phe Ser Gln Tyr Gly Ala Gly Leu Asp Ile
```

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56              180               185               190
57 Val Ala Pro Gly Val Asn Val Gln Ser Thr Tyr Pro Gly Ser Thr Tyr
58           195               200               205
59 Ala Ser Leu Asn Gly Thr Ser Met Ala Thr Pro His Val Ala Gly Ala
60      210               215               220
61 Ala Ala Leu Val Lys Gln Lys Asn Pro Ser Trp Ser Asn Val Gln Ile
62 225               230               235               240
63 Arg Asn His Leu Lys Asn Thr Ala Thr Ser Leu Gly Ser Thr Asn Leu
64           245               250               255
65 Tyr Gly Ser Gly Leu Val Asn Ala Glu Ala Ala Thr Arg
66           260               265
69 <210> SEQ ID NO: 2
70 <211> LENGTH: 275
71 <212> TYPE: PRT
72 <213> ORGANISM: Bacillus amyloliquefaciens
74 <220> FEATURE:
75 <223> OTHER INFORMATION: Subtilisin BPN'
77 <400> SEQUENCE: 2
78 Ala Gln Ser Val Pro Tyr Gly Val Ser Gln Ile Lys Ala Pro Ala Leu
79 1               5                 10                15
80 His Ser Gln Gly Tyr Thr Gly Ser Asn Val Lys Val Ala Val Ile Asp
81           20                25                30
82 Ser Gly Ile Asp Ser Ser His Pro Asp Leu Lys Val Ala Gly Gly Ala
83           35                40                45
84 Ser Met Val Pro Ser Glu Thr Asn Pro Phe Gln Asp Asn Asn Ser His
85      50                55                60
86 Gly Thr His Val Ala Gly Thr Val Ala Ala Leu Asn Asn Ser Ile Gly
87 65               70                75                80
88 Val Leu Gly Val Ala Pro Ser Ala Ser Leu Tyr Ala Val Lys Val Leu
89           85                90                95
90 Gly Ala Asp Gly Ser Gly Gln Tyr Ser Trp Ile Ile Asn Gly Ile Glu
91           100               105               110
92 Trp Ala Ile Ala Asn Asn Met Asp Val Ile Asn Met Ser Leu Gly Gly
93           115               120               125
94 Pro Ser Gly Ser Ala Ala Leu Lys Ala Ala Val Asp Lys Ala Val Ala
95      130               135               140
96 Ser Gly Val Val Val Val Ala Ala Ala Gly Asn Glu Gly Thr Ser Gly
97 145               150               155               160
98 Ser Ser Ser Thr Val Gly Tyr Pro Gly Lys Tyr Pro Ser Val Ile Ala
99           165               170               175
100 Val Gly Ala Val Asp Ser Ser Asn Gln Arg Ala Ser Phe Ser Ser Val
101            180               185               190
102 Gly Pro Glu Leu Asp Val Met Ala Pro Gly Val Ser Ile Gln Ser Thr
103            195               200               205
104 Leu Pro Gly Asn Lys Tyr Gly Ala Tyr Asn Gly Thr Ser Met Ala Ser
105      210               215               220
106 Pro His Val Ala Gly Ala Ala Ala Leu Ile Leu Ser Lys His Pro Asn
107 225               230               235               240
108 Trp Thr Asn Thr Gln Val Arg Ser Ser Leu Glu Asn Thr Thr Thr Lys
```

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PATENT APPLICATION: US/10/075,907   TIME: 14:51:05

Input Set : **A:\7039sl.txt**
Output Set: **N:\CRF3\03042002\J075907.raw**

```
109                   245               250               255
110  Leu Gly Asp Ser Phe Tyr Tyr Gly Lys Gly Leu Ile Asn Val Gln Ala
111                   260               265               270
112  Ala Ala Gln
113              275
```

VERIFICATION SUMMARY   DATE: 03/04/2002
PATENT APPLICATION: US/10/075,907   TIME: 14:51:06

Input Set : **A:\7039sl.txt**
Output Set: **N:\CRF3\03042002\J075907.raw**

L:14 M:270 C: Current Application Number differs, Replaced Current Application Number
L:15 M:271 C: Current Filing Date differs, Replaced Current Filing Date